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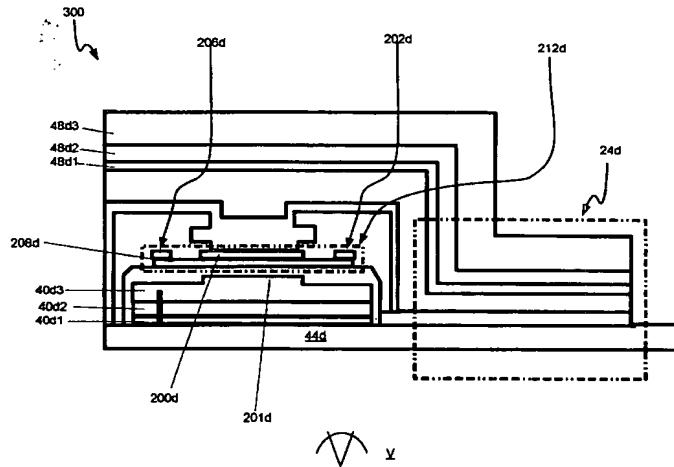
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(54) Title: OLED DISPLAY WITH CONTRAST ENHANCING INTERFERENCE MEMBERS



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(57) Abstract: The present invention introduces a novel design for active matrix displays, utilizing both organic light-emitting diode (OLED) and thin-film electroluminescent technologies. In a first aspect there is provided a top-emitting OLED, including an optical interference contrast-enhancing stack that is placed on the top of the driving thin-film transistor, and which extends to the entire pixel area to cover the reflecting parts of the pixel. In a second aspect, there is provided a bottom-emitting OLED wherein an optical interference contrast-enhancing stack is placed right under the driving thin-film transistor and, separately between the organic stack and the top electrode, typically a cathode. The optical interference contrast-enhancing stack suppresses light reflection from the thin-film transistor and the upper electrode. In the top emitting design, the optical interference contrast-enhancing stack is placed on the top of the thin-film transistor source and drain electrodes as well as on the top of the opaque bottom electrode. A method of achieving substantial uniformity across a display having multiple areas of optical interference members is also provided.

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